

Fish ovulation and egg overripe

- Ovulation which is the final phase of egg development should be properly monitored in order to achieve high rate of fertilization
- In artificial spawning, watching for the ovulation time is done and carried out through careful checking during the expected ovulation time window.
- Expected ovulation time after hormonal injection is based on several factors including species, injection protocol, and water temperature.
- Depending on reproduction behavior, specific practices may be followed. This may include placing an indicator male among target females whereas courtship move would indicate the closeness of ovulation and then females could be collected and stripped.



Egg stripping of an ovulated African catfish female

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- If ovulation event is missed, and eggs remain in female's body for a specific period, eggs will turn overripe and can no longer be fertilized. This period varies according to some factors as shown in the opposite Table
- In general, the eggs of warm water fish turn overripe more quickly compared to cold water fish

Maximum period between ovulation and egg over-ripening for selected fish species

Species	Scientific name	Period (min, day)
Bighead carp	<i>Hypophthalmichthys nobilis</i>	50-80 min
Common carp	<i>Cyprinus carpio</i>	50-80 min
Grass carp	<i>Ctenopharyngodon idella</i>	30-45 min
Rainbow trout	<i>Salmo gairdneri</i>	7 days
Striped bass	<i>Morone saxatilis</i>	15-30 min
Sturgeon	<i>Acipenser sp.</i>	2 days

Source: Rottmann, R.W., et al. 1991. Techniques for taking and fertilizing the spawn of fish